

Translation

PATENT COOPERATION TREATY

PCT/EP2003/008117



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P42237_S PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/008117	International filing date (day/month/year) 24 July 2003 (24.07.2003)	Priority date (day/month/year) 25 July 2002 (25.07.2002)
International Patent Classification (IPC) or national classification and IPC E05D 15/10		
Applicant KNORR-BREMSE GES. M. B. H.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>4</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 02 December 2003 (02.12.2003)	Date of completion of this report 02 November 2004 (02.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/EP2003/008117

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 3-7 _____, as originally filed
pages _____, filed with the demand
pages _____ 1, 2, 2a _____, filed with the letter of _____ 07 June 2004 (07.06.2004)
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-8 _____, filed with the letter of _____ 07 June 2004 (07.06.2004)
- ☒ the drawings:
pages _____ 1/3-3/3 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the sequence listing part of the description:
pages _____ 1-4 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 8	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 8	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 8	YES
	Claims		NO

2. Citations and explanations

1. This report makes reference to the following documents:

D1: EP-A-0 461 104 (IFE GMBH), 11 December 1991
(1991-12-11)

D2: GB-A-2 283 054 (IFE GMBH), 26 April 1995
(1995-04-26)

D3: EP-A-0 478 536 (IFE GMBH), 1 April 1992 (1992-04-01)

2. Although claim 1 meets the requirements of PCT Article 33(2) and 33(3) in relation to the searched prior art, it would have to be amended in order to overcome the following objections:

- a) The expression "if required" in claim 1, line 3, suggests that the rotatability of the carriage (2) is optional. However, this contradicts the description (cf. page 3, line 5ff). The expression "if required" should be deleted for the claim to be clear.
- b) The description of a rotary slide joint in the characterising part of claim 1 as permitting

"both a relative rotary movement and a sliding movement in the joint area..." is not adequate to restrict the subject matter of claim 1 clearly with respect to the prior art. In D1 (cf. figure 3), a relative rotary movement also takes place between the carriage (5 in D1) and the driver (9 in D1), and a sliding movement takes place between the wing (10 in D1) and the roller (12 in D1). It should be clear from the description of the rotary slide joint in claim 1 of the application that the rotary spindle nut (4) (possibly "a projection (8) on the rotary spindle nut") is rotatable and radially displaceable about an abutment (7) on the carriage (2), thus defining the joint region (see the application, page 4, lines 7-14).

- c) As already indicated in point b) (see "rotary spindle nut..."), it is also essential to the invention that the spindle nut of the spindle drive is not secured against rotation inside the drive, unlike the spindle nut of a linear drive of the type described in D1. This is not clear from claim 1 of the application.

3. Document D1, which is considered to represent the closest prior art, discloses (cf. column 1, lines 33-51; column 2, line 51 - column 3, line 26) a drive for a swinging-sliding door in which the end faces of the support links or carriages that carry the door interact with a driver of a linear drive for sliding the door longitudinally.

The subject matter of a claim 1 clarified as

explained in point 2 would differ from the known drive in that a spindle drive would be used, the spindle of which would be connected to the support link or carriage by a rotary slide joint.

The subject matter of a claim 1 clarified in this way would be novel (PCT Article 33(2)).

The present invention could therefore be considered to address the problem of providing a swinging-sliding door drive that requires less maintenance.

The solution to this problem, as proposed in a claim 1 clarified as explained in point 2, would involve an inventive step (PCT Article 33(3)) for the following reasons:

Instead of a linear drive, a spindle drive would be used in which the rotary movement of the spindle nut about the spindle would have to be limited and an articulated connection between the spindle nut and the support link or carriage would have to be provided in order to bring about a linear movement of the spindle nut and of the support link or carriage. In the known prior art drives, this is achieved only by joining the spindle nut to the support link or carriage in an articulated manner by means of a connection rod, so that the connection rod limits the rotary movement of the spindle nut. The prior art neither describes nor suggests the replacement of the connection rod by a space-saving and direct connection between the spindle nut and the support link or carriage by means of a rotary slide joint.

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4. If claims 2-8 were dependent on an independent claim 1 clarified in this way, they would also meet the PCT novelty and inventive step requirements.